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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,516	03/15/2004	Brian D. Goers	53949US013	9467
32692	7590	01/08/2008		
3M INNOVATIVE PROPERTIES COMPANY				
PO BOX 33427				
ST. PAUL, MN 55133-3427				
EXAMINER				
RACHUBA, MAURINA T				
ART UNIT		PAPER NUMBER		
3723				
NOTIFICATION DATE		DELIVERY MODE		
01/08/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com

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Office Action Summary

Application No.

10/800,516

Applicant(s)

GOERS, BRIAN D.

Examiner

Maurina Rachuba

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 13-22 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 23 and 25-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 29 October 2007 has been entered.

Election/Restrictions

2. Claims 13-22 and 24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 18 January 2005.

Claim Rejections - 35 USC § 112

3. Claims 1-12, 23 and 25-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new matter is "the carrier is non-magnetically affixed to said bottom substrate surface". The examiner could find no disclosure to this particular exclusion of fastening type, and does not believe that such

is inherent to the disclosure, as applicant does not exclude any other types of fasteners. Please refer to MPEP 706.03(O).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-8, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hempel, Jr. 5,683,289 in view of Gurusamy et al, 6,361,423 (previously cited). '289 discloses the claimed invention, see for example column 4, lines 8-19, including the carrier being nonmagnetically affixed to the bottom substrate surface. The substrate matrix comprises stainless steel, which comprises chromium, a corrosion resistant material, and in forming the substrate material, assumed to be in powder form. The surface has a plurality of abrasive particles ("diamond encrusted") affixed to the substrate with a matrix material, column 4, lines 10-19, the pattern being predetermined. '289 does not disclose that the carrier comprises at least one of synthetic plastic or ceramic. In a similar device, '423, column 10, lines 54 through column 11, lines 25, teaches a substrate mounted to a carrier, the carrier comprising a synthetic plastic. Because both references teach devices for conditioning polishing pads, the devices comprising both abrasive surfaced substrate and carrier, it would have been obvious to one skilled in the art to substitute one carrier material for the other to achieve the predictable result of providing a suitably rigid carrier for the disk, to prevent unwanted distortion of the disk during use. Further, '289 does not disclose that the carrier is affixed to the substrate with an adhesive. '289 does disclose that the use

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of adhesive (double sided tape) is conventional, if not satisfactory for his specific purpose, see column 5, lines 1-7.

6. Claims 9-12, and 23, and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hempel, Jr. 5,683,289 in view of Gurusamy et al, 6,361,423 as applied to claim 1 above, and further in view of Sung, 6,679,243 (previously cited). Regarding claims 9-12, '289 as modified by '423 does not disclose or teach the matrix material comprising a brazing alloy, which further comprises at least one of chromium, tungsten, cobalt, titanium, zinc, iron, manganese or silicon, ('289 does disclose that the abrasive is diamond) or that the brazing alloy is aluminum, boron, carbon or silicon, with the abrasive is cubic boron nitride or aluminum oxide. '243, column 13, lines 36-39, teaches using a brazing alloy with diamond abrasive, the alloy containing chromium, manganese, or silicon; column 14, lines 44-55, teaches that the alloy further contains titanium, cobalt, zinc, or iron. '243 further teaches that dependent on tool use, other abrasives, such as cubic boron nitride. Because both references teach abrasive bonded to supports by a matrix, it would have been obvious to one of ordinary skill in the art to have substituted the materials taught by '243 for those of '289, for the predictable result of strongly bonding the abrasive to the support. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Regarding the use of aluminum oxide as an abrasive, in the Office action of 15 April 2005, the examiner took Official notice that the use of aluminum oxide, an old and well known abrasive, would have been obvious to one of ordinary skill.

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Applicant did not traverse in the response filed 15 July 2005. In accordance with MPEP 2144.03, the use of aluminum oxide is therefore admitted as prior art. Regarding claims 23 and 25-30, '289 as modified by '423 does not disclose the abrasive affixed to the substrate with an electroplated material or electroplated metal. '243, column 24, lines 53-61, teaches that it is known to make conventional conditioner by electroplating abrasive to a substrate. Because both references teach abrasive tools, with the abrasive bonded to a support, it would have been obvious to one of ordinary skill in the art to substitute one binding material for another to achieve the predictable result of bonding the abrasive to the support. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Response to Arguments

7. Applicant's arguments with respect to claims 1-12, 23 and 25-32 have been considered but are moot in view of the new ground(s) of rejection. Applicant's amendment has overcome the previous rejections. However, a new matter concern has been raised. Applicant has argued that the amendment is supported by the specification. The examiner agrees that the limitation "permanently affixed" is supported, but not the limitation "non-magnetically affixed". A structure can be permanently affixed to another structure magnetically, dependent on the strength of the magnetic force.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maurina Rachuba whose telephone number is 571 272 4493. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571 272 4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. Rachuba/
Primary Examiner, Art Unit 3723